

REMARKS

Claims 1-16, 18, 20-22, and 24 were examined. No claims have been amended. Applicant thanks the Examiner for the continued allowability of claims 20-22 and 24. No new matter has been presented.

CLAIM 1 IS SUPPORTED BY ADEQUATE WRITTEN DESCRIPTION

Claims **1-9** were rejected under 35 USC 112, first paragraph for failing to comply with the written description requirement. The Applicant respectfully traverses the rejections.

The Applicant disagrees with the Examiner's assertion that claim **1** is not supported by the written description. According to the MPEP 2131.02, disclosure of a single member of a genus can anticipate. If disclosure of a species can anticipate a genus, disclosure of a single species can conceivably provide written description for that genus. Indeed MPEP 2163(II)(A)(3)(a) indicates that this is clearly possible. Specifically, this section of the MPEP states that "The written description requirement for a claimed genus may be satisfied through sufficient description of a representative number of species". The same MPEP section goes on to state that:

A "representative number of species" means that the species which are adequately described are representative of the entire genus. Thus, when there is substantial variation within the genus, one must describe a sufficient variety of species to reflect the variation within the genus. The disclosure of only one species encompassed within a genus adequately describes a claim directed to that genus only if the disclosure "indicates that the patentee has invented species sufficient to constitute the gen[us]." See *Enzo Biochem*, 323 F.3d at 966, 63 USPQ2d at 1615; *Noelle v. Lederman*, 355 F.3d 1343, 1350, 69 USPQ2d 1508, 1514 (Fed. Cir. 2004) (Fed. Cir. 2004)

The Applicant further notes that MPEP 2163(II)(A)(2) requires that the Examiner review the entire application to understand how the Applicant provides support for the claimed invention including each element and/or step. In particular, this section of the MPEP states:

...the examiner should review the claims and the entire specification, including the specific embodiments, figures, and sequence listings, to understand how applicant provides support for the various features of the claimed invention. An element may be critical where those of skill in the art would require it to determine

that applicant was in possession of the invention. Compare *Rasmussen*, 650 F.2d at 1215, 211 USPQ at 327 ("one skilled in the art who read Rasmussen's specification would understand that it is unimportant how the layers are adhered, so long as they are adhered")...

In addition, MPEP 2163(II)(3)(b) makes it clear that disclosure of a species can support a genus even if the claim is new or amended. Specifically:

When an explicit limitation in a claim "is not present in the written description whose benefit is sought it must be shown that a person of ordinary skill would have understood, at the time the patent application was filed, that the description requires that limitation." *Hyatt v. Boone*, 146 F.3d 1348, 1353, 47 USPQ2d 1128, 1131 (Fed. Cir. 1998).

The same section also cites *In re Wright*, 866 F.2d 422, 425, 9 USPQ2d 1649, 1651 (Fed. Cir. 1989). In that case, the original specification for method of forming images using photosensitive microcapsules which describes removal of microcapsules from surface and warns that capsules not be disturbed prior to formation of image, unequivocally teaches absence of permanently fixed microcapsules and supports amended language of claims requiring that microcapsules be "not permanently fixed" to underlying surface, and therefore meets description requirement of 35 U.S.C. 112.

Furthermore *In re Robins*, 429 F.2d 452, 456-57, 166 USPQ 552, 555 (CCPA 1970) states "[W]here no explicit description of a generic invention is to be found in the specification[,] ... mention of representative compounds may provide an implicit description upon which to base generic claim language.").

Furthermore, as set forth *In re Smith*, 458 F.2d 1389, 1395, 173 USPQ 679, 683 (CCPA 1972) a subgenus is not necessarily implicitly described by a genus encompassing it and a species upon which it reads); *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) ("To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.'") (citations omitted).

In addition, MPEP 2163(II)(3)(b) states that each claim must include all elements which Applicant has described as essential. See, e.g., *Johnson Worldwide Associates Inc. v. Zebco Corp.*, 175 F.3d at 993, 50 USPQ2d at 1613; *Gentry Gallery, Inc. v. Berkline Corp.*, 134 F.3d at 1479, 45 USPQ2d at 1503; *Tronzo v. Biomet*, 156 F.3d at 1159, 47 USPQ2d at 1833.

The Applicant submits that it is clear from the foregoing that the Examiner must distinguish between features that are critical and those that are not in determining whether the Applicant was in possession of the invention. It is also clear that in order to comply with the written description requirement the amended claims must include critical features and that the specification as filed must make clear that the missing descriptive matter is necessarily present. In the present case, page 3, lines 29-30 states that solvent vapor annealing alone anneals the film without heating it. Applicant then discloses an example on page 4, lines 7-16 in which films annealed by exposure to solvent vapor were solvent resistant while similar films that were not exposed to solvent vapor were not. The Applicant submits that these teachings clearly set forth that the critical feature for obtaining insolubility of the outermost portion of the annealed film is solvent vapor exposure, which is set forth in claim 1. The Applicant further submits that when these two teachings are taken together, one of skill in the art would realize that the critical feature to anneal the film is the solvent vapor exposure and that nothing further is required to anneal the film. In other words, the specification as filed implicitly teaches that what is not done after solvent vapor exposure is not important for annealing since the solvent vapor exposure alone is described as being sufficient to anneal the film. Consequently, one of skill in the art would conclude that the Applicant had possession of the invention as set forth in claim 1 at the time of filing. Therefore, the present application provides adequate written description for claim 1.

It is therefore respectfully requested that the rejections of claims 1-9 under 35 USC 112, first paragraph be withdrawn.

Furthermore, it is submitted that since claims 1-9 were not rejected under 35 USC 102 or 35 USC 103, these claims are allowable over the prior art of record.

CLAIM 10 IS ALLOWABLE OVER FURENDAL

Claims **10-16** and **18** were rejected under 35 USC 103(a) as being obvious in view of Furendal. Applicant respectfully traverses the rejection.

The combination of Furendal with skill in the art does not teach all the elements of claim 10.

Claim **10** requires placing a solution containing an organic material and a first solvent on a substrate; evaporating the first solvent from the solution leaving an organic film on the substrate; annealing the organic film by exposing it to a vapor of a second solvent for a period of time sufficient to render at least an outermost portion of the organic film insoluble in the first solvent, wherein the first solvent and second solvent are the same solvent. This means that the solution when deposited, also contains the same solvent that is used in the vapor to anneal the film. In the examples provided by Furendal, the main solvent used to form the film is water. None of the Furendal examples, however, use water vapor to anneal the film.

Furthermore, the Applicant submits that Furendal does not teach or suggest, and in fact teaches away from “annealing the organic film by exposing it to a vapor of a second solvent” as set forth in claim **10**. Instead, Furendal teaches that the solvent treatment is an aid to film formation. See col. 11, line 60 to col. 12, line 15. Consequently, Furendal does not teach annealing an organic film by exposing it to a vapor of a solvent. Example 16 of Furendal is illustrative of this point. In that example a dispersion containing 95% methyl methacrylate and 5% glycidyle methacrylate was sprayed on to aluminium sheets. After drying at room temperature, the sheets were treated with acetone vapour for 10 seconds. After-treatment took place in a drying chamber at 120°C for 30 minutes. A test of the cross-linking of the coating was made with liquid acetone at room temperature during 1 hour. See col. 27, lines 23-42. The Applicant submits that in Example 16, cross-linking takes place as a result of heat treatment and/or reactive components in the dispersion and not as a result of the solvent vapor treatment alone. Furthermore, this example makes clear that it is only after such cross-linking that the film is solvent resistant.

Therefore, modifying Furendal to use the same solvent for film deposition and annealing would still not teach all the limitations of claim **10** since Furendal's vapor treatment step is not used to cross-link the film. As such, a *prima facie* case of obviousness is not present with respect to claim **10**.

Per MPEP 2143.01, the proposed modification cannot render the prior art unsatisfactory for its intended purpose.

The Applicant notes that, according to MPEP 2143.01(V) “[i]f proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984)”.

In the present case, the Office has proposed replacing the mostly water based solvents in Furendal with another solvent, particularly those solvents cited on page 5 line1-2 for use in cross-linking the films of Furendal. However, Furendal specifically requires that cross-linking must not take place until after treatment with solvent (Col. 8, lines 34-39). Thus, any modification of Furendal that would lead to premature cross-linking prior would be both counterintuitive and contrary to the purpose of the invention in Furendal. As such, for at least this additional reason a *prima facie* case of obviousness is not present with respect to claim **10**.

In addition, claims **11-16** and **18** depend either directly or indirectly from claim **10** and recite additional features therfor. As such and for the same reasons set forth above, the Applicant submits that these dependent claims define an invention suitable for patent protection.

CONCLUSION:

For the reasons set forth above, the Applicant submits that all claims are allowable over the cited art and define an invention suitable for patent protection. The Applicant therefore respectfully requests that the Examiner enter the amendment, reconsider the application, and issue a Notice of Allowance in the next Office Action.

Respectfully submitted,

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